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## Effects of Implementing to Total Quality Management on the Business Performance and a Research

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**Abstract:** Total quality management (TQM) has been mentioned to have positive effect on business performance considerable attention in the literature and researches. The aim of this study is to analyse the performance changes in a shopping center. A research model was composed of four performances dimensions. Qualification and quantitative data of the model were grouped and evaluated by using statistical methods. In the end of the study, after implementing of TQM the performance increase was observed in the all sized of the business by years .

### Introduction

With the increasing competitive, business survival pressure and the dynamic, changing customer-oriented environment, total quality management (TQM) has been recognized as one of the important issues and generated a substantial amount of interest among managers and researchers (Samson and Terziovski, 1999, p. 393-409; Adam et al., 2001, p. 39-43; Samson and Daft, 2005, p. 250-265). Some authors conclude that TQM positively influences business performance through the development of a series of competencies (Powell, 1995, p. 15-37; Douglas and Judge, 2001, p. 158-169; Brah et al., 2002, p. 356-379; Garcı et al., 2010, p. 363-382). Furthermore TQM has an impact on the way organization members apply their knowledge in the organization, and therefore it affects organizational performance.

Firms that focus on continuous improvement, involve and motivate employees to achieve quality output and focus on satisfying customers' needs are more likely to outperform firms that do not have this focus (Seth, and Tripathi, 2006, p. 811-826; Joiner, 2007, p. 617-627; Jitpaiboon and Rao, 2007, p. 78-102). Business performance management (BPM) is a key business initiative that enables companies to align strategic and operational objectives with business activities in order to fully manage performance through better informed decision making and action. In other words, BPM is a process that enables to meet business performance measurements and objectives. It enables to proactively monitor and manage business processes, and take the appropriate actions that result in meeting objectives (Ballard et al., 2005, p. 27-29; Alfaro et al., 2007, p. 643; Kanji, 2002, p. 1116). Business performance basically composed of three approaches. Those are; financial; financial and operational; and organisational effectiveness (Venkatraman and Ramanujam, 1986, p. 801-14). From other side business performance reviews put in action and bring the firm's performance measurement models to life, such as balanced scorecards, performance prisms, budgeting systems, assessment frameworks and accounting systems. (Martinez and Kennerley, 2009, p. 12-21; Sardana, 2008, p. 32).

## The Study

In this section, information on purpose, scope, method of the application and model is provided. The purpose of this study is that comparative evaluation of performance results before and after TQM applications in an organization and investigating to what extend TQM applications contribute to the organization. The scope of is limited to 2005-2009 data from an shopping center in Afyonkarahisar, is a province of Turkey is a gas station belonging to the shopping center out of the building. As of 2007, the shopping center started using TQM applications.

Performance model; this model was first used in Eleren and Soba (2009:1309). Originally, there are six dimensions and scales of the model. The model included marketing, finance, internal and external customer dimensions. To determine the dimensions of the model, the organization's database was used and the most appropriate ones were selected. Availability of database including questionnaire data administered to the internal and external customer of the organization in pervious years and finance and sale data affected determining these four dimensions. Data collection: In evaluating first two dimensions, a scale composed of likert-type questions was used. In the other two dimensions, quantitative data was used. Data was gathered from a large database including years between 2005 and 2009.

BASIC DIMENSIONS	INDICATORS	SUB INDICATORS
1. External Customers	Customer Satisfaction	Re-De Cost/Quality Diversity Flexibility .....
2. Internal Customers (Employees)	Fidelity, Productivite	Job Satisfaction Working Conditions Fee and Responsibility Quality of Work life Job Healty and security .....
3. Marketing Function	Market Performance	Sales Market Shares Sales Refund .....
4. Financial Function	Financial Performance	<u>liquidity</u> Loans Profitability Action/Effectiveness

**Table-1:** Proposed New Performance Model and Its Dimensions

## Findings

In this section, four dimensions of the model are separately reported. Those are; Customer Satifaction Dimention, Employee Satisfaction Dimention, Market Performance Dimention, Financial Performance Dimention.

**Customer Satifaction Dimension;** a questionnaire including five-point likert-type items were administered to customers between 144 and 172 to measure customer satisfaction. The results are provided the table below.

Performance Criteria	2005	2006	2007	2008	2009	AVR.
We have been getting sufficient and quick answers to our problems and complaints	2,58	2,61	3,22	3,45	4,68	3,31
Product game is wide	2,78	2,74	3,43	3,53	3,61	3,22
The staff is friendly and well dressed	2,89	2,94	3,2	3,39	3,46	3,18
The products ratio of price / quality are appropriate	2,91	2,87	3,34	3,36	3,28	3,15
Quality performance of business is high at all products and services of it	2,65	2,68	3,15	3,11	3,44	3,01
Service areas are, clear,regular and sanitary	2,41	2,36	2,84	2,98	3,24	2,77
Business provides convenience on chancing of the faulty products	2,31	2,65	2,57	2,96	3,13	2,72
Business takes into account of our choices and tastes on it products	2,21	1,91	2,52	2,59	3,22	2,49
Product price, quantity, manufacturer, manufacturing and expiry dates availables on labels	2,17	2,15	2,51	2,61	2,95	2,48
The design of our products are suitable fashion and our tastes.	2,27	2,22	2,59	2,56	2,63	2,45
Brands offered by the business is reliable and I always prefer	2,21	2,24	2,32	2,52	2,49	2,36
Introductions of product are reasonable and attractive	1,86	1,91	2,12	2,34	3,33	2,31
It has been providing convenience at the shoppings	1,29	1,73	1,66	1,93	2,26	1,77
Products packages are adequate and attractive.	1,13	1,47	1,69	1,48	2,69	1,69
<b>AVR.</b>	2,26	2,32	2,65	2,77	3,17	2,64
<b>N=2500</b>	n=60	n=60	n=60	n=60	n=60	

**Table-2:**Performance to Based on Customer Satisfaction

As of 2007 when TQM was started to use, the averages were above the hypothetical average of 2.5 and has continuously improved. This shows that customer satisfaction improved. When propositions customers positively rated were evaluated it was seen that the following TQM applications were effective in the organization: qualities and varieties of products, quick response customer needs and compliance and friendly sales personnel. To measure employee satisfaction, a questionnaire including five-point likert scale was administered to 60 employees out of 67 excluding 7 mid-level managers. The results were reported in the table below. As given above, before and after TQM evaluation results were not be able to given here because there were not data available on employee satisfaction in previous years. The evaluation was provided only for a term for 2008. Responses of average as of 2007 are above hypothetical average of 2.5. This shows the positive views of participants after TQM applications. The propositions on the following issues show that TQM applications reach their goals: consultations before decisions, participation in management, fair work and fair pay.

**Market Performance Dimensions;** international and domestic sale performances were considered. Two separate indices for two separate years were prepared. The sales of the organization were grouped in four categories. Based on 2005 sales, an increment index was created using data simplified by inflation rate. It showed that sale started to increase in and after 2007.

SALES (TL) (*)	2005	2006	2007	2008	2009
Textile& Home Application&Electronic Increase (2005 base)	1.256.172 1,00	1.268.949 1,01	1.688.320 1,34	1.844.997 1,47	1.746.584 1,39
Market Increase (2005 base)	1.010.127 1,00	1.008.965 1,00	1.101.918 1,09	1.372.173 1,36	1.201.328 1,19
Cafe&Restourant&Enter . Increase (2005 base)	323.878 1,00	338.842 1,05	372.751 1,15	528.519 1,63	540.120 1,67
Fuel Increase (2005 base)	139.462 1,00	161.919 1,16	127.703 0,92	183.674 1,32	241.205 1,73
<b>TOTAL</b> Increase (2005 base)	2.729.640 1,00	2.778.674 1,02	3.290.693 1,21	3.929.363 1,44	3.729.237 1,37

**Table-3:** Marketing Performance Scores

(\*)The total value amounts belonging to years and rates have been corrected by inflation.

TQM applications affected the sales positively. That increase in sales in 2009 was less than the increase in 2007 and 2008 shows the effects of the global crises.

**Financial Performance Dimension;** the organization's 2005-2009 fiscal years financial tables were used for financial performance. Data firstly converted to financial ratios by ratio analysis was converted to financial accomplishment performance scores using Altman's Zeta model. The basic evaluation of this model is based on Z-value calculations developed by Altman (Altman vd., 1977:26-51). Although the Zeta model was designed to determine level of bankruptcy and accomplishment levels it helps compare organizations' financial performances by years.

$$\begin{aligned}
 Z = & + 1.2 * (\text{Net business asset/total assets}) \\
 & + 1.4 * (\text{distrubuted profits/Total assets}) \\
 & + 3.3 * (\text{profit before Interest and tax//total assets}) \\
 & + 0,6 * (\text{capital/debts}) \\
 & + 0.999 (\text{sales/total assets})
 \end{aligned}$$

	2005	2006	2007	2008	2009
<b>Altman Zeta</b>	2,81	2,89	3,06	3,45	3,36
Increases(2005 base)	1,00	1,03	1,09	1,23	1,20

**Table-4:** Financial Performance Scores

According to table, based on 2005, in 2007 and after, there was a significant increase in the financial performance. Although there was a little decrease in recent year it is projected the performance will increase after the global crisis.

## Results

Total Quality Management affects organization competitive positions positively. Increase in internal and external customer satisfaction, marketing, production and financial performance as a result of successful application, is expected goal theoretically. While these developments are experienced that will affect competition positively the results of these developments will reach to other shareholders, such as associates, customers, society, government etc. In this study, the theoretic level of performance of an organization owning a shopping center was tested using a performance measurement model. The model is composed of internal and external customers, marketing and finance dimensions. Based on this relationship, the model was used to determine the expected performance increase of the organization. That a positive increase was observed in all dimensions when TQM was started to be used means that TQM positively contributed to organizations' performance. In a successful TQM application, a similar performance increase should be seen in other organizations. However, the position of the organization, professionalism in management, size, quality of technology and workforce etc. factors will affect performance reached. These differences have to be investigated in other studies.

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